



S/M No.:DWM161011

Service Manual

Washing Machine

Model : DW-1050
DW-1051

• Caution:
In this Manual, some parts can be changed for improving, their performance without notice in the parts list. So, if you need the latest parts information, please refer to PPL(Parts Price List) in Service Information Center (<http://svc.dwe.co.kr>).

Sep. 2001

DAEWOO
ELECTRONICS



WASHING MACHINE

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1. SPECIFICATIONS

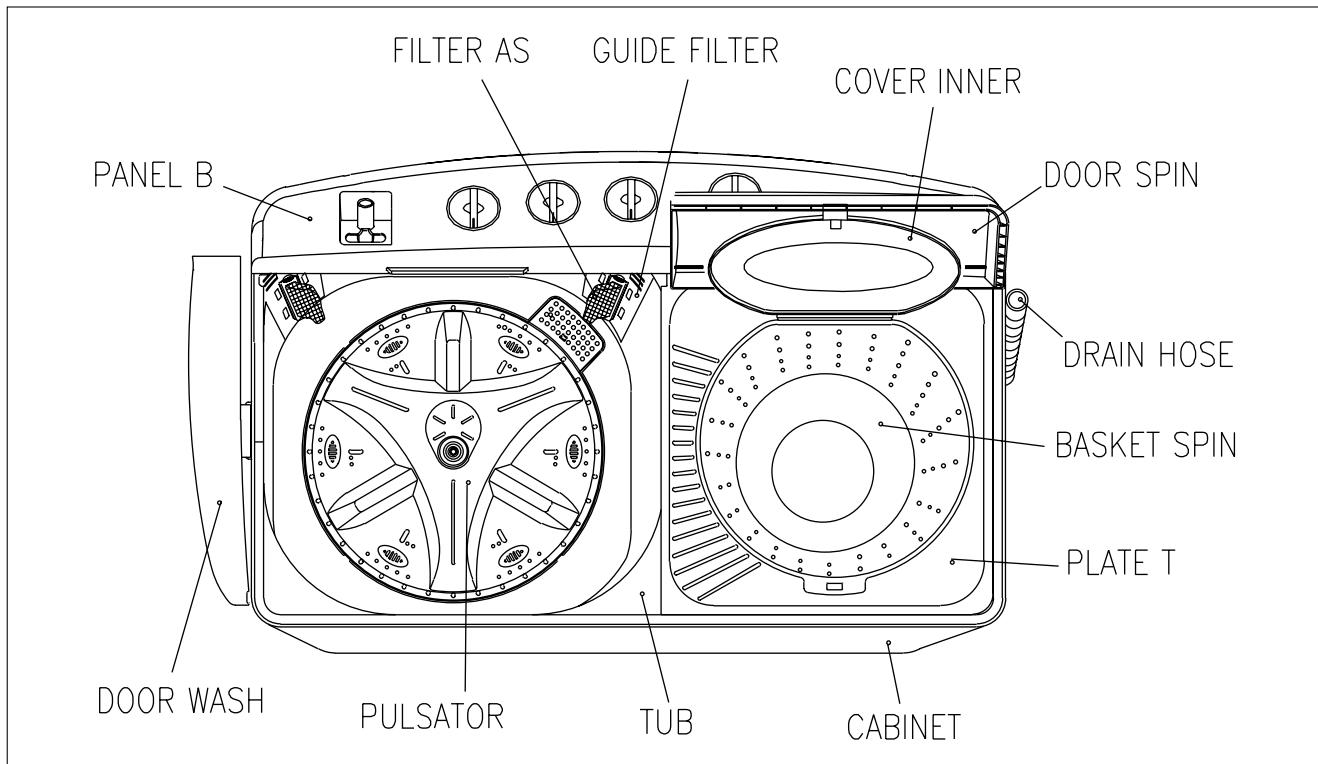
NO.	ITEM		SPECIFICATIONS								
1	POWER SOURCE	VOLTAGE	AC 110V	AC 220V	AC 127/220V	AC 110/220V	AC 220V	AC 240V			
		FREQUENCY	60Hz			50Hz					
2	POWER CONSUMPTION	PUMP	580W			550W					
		NON PUMP	530W			500W					
3	DIMENSION		NET : 884X542X1020, PACKED UP : 898X558X1035 (WXDXH)								
4	MACHINE WEIGHT	PUMP	NET : 35kg, PACKED UP : 37kg								
		NON PUMP	NET : 34kg, PACKED UP : 36kg								
5	WASHING COURSE		STRONG, NORMAL								
6	WATER LEVEL		HIGH:80ℓ, MEDIUM:70ℓ, LOW:60ℓ								
7	REVOLUTION PER MINUTE	WASH	100 rpm			100 rpm					
		SPIN	1700 rpm			1400 rpm					
8	TIMER	WASH	MAX. 15 min., Manual operation								
		SPIN	MAX. 5 min., Manual operation								
9	WASHER TYPE		PULSATOR TYPE								
10	SPIN TYPE		CENTRIFUGALLY SEPARATED TYPE								
11	MAXIMUM MASS OF TEXTILE	WASH	8.0 kg (DWM-160C)			10.0 kg (DWM-170C)					
	OF TEXTILE	SPIN	7.0 kg								
12	WATER SUPPLY		MANUAL								
13	SPIN RINSE		O								
14	OUTLET OF DRAIN HOSE		REAR								
15	LINT FILTER		O								

NOTE : Explanation table for suffix of names.

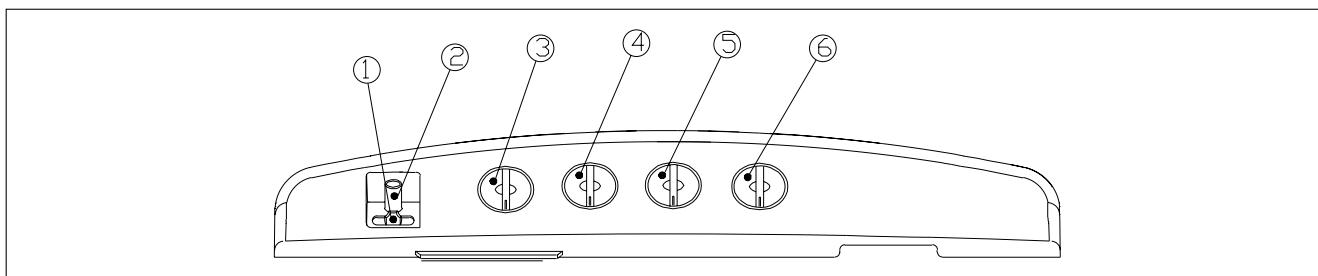
POWER SOURCE	SUFFIX		EXPLANATION
	NON PUMP	PUMP	
AC 100V 50/60Hz	J	-	
AC 110V 60Hz	T	TP	
AC220V 50Hz	N	NP	
AC 220V 60Hz	L	LP	
AC 240V 50Hz	M	MP	
AC 110/220V 50Hz	D	-	
AC 127/220V 60Hz	S	-	

2. EXTERNAL VIEW

Structure Of The Washing Machine



Control Panel (Panel b Ass'y)



① LEVER WATER SUPPLY SELECTOR

Left : water supply in the WASH TUB.

Right : water supply in the BASKET SPIN.

② INLET WATER

Connect inlet hose to supply water in the WASH TUB or BASKET SPIN.

③ WASH TIMER

Use to select the desired time for washing or rinsing.

④ WASH ACTION

Use to select wash action. ("STRONG", "NORMAL")

⑤ VALVE SELECTOR

Select "WASH, RINSE" for washing and rinsing, and "DRAIN" to drain the water.

(In case PUMP MODEL turn on the drain pump)
"OFF" to turn off the drain pump. (Only PUMP MODEL)

⑥ SPIN TIMER

Used to select the desired time for spinning.

3. PRINCIPLES OF OPERATION AND EXPLANATION OF FUNCTIONS

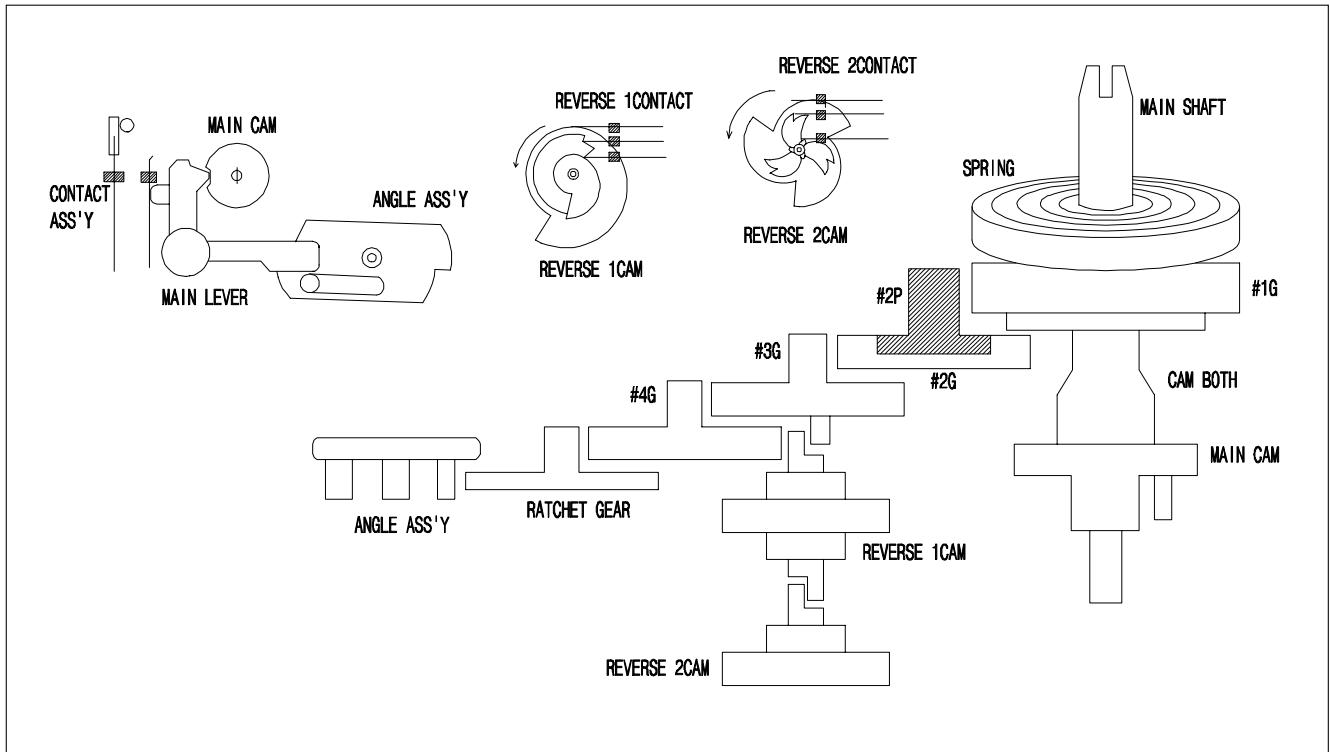
Wash Timer

FUNCTION

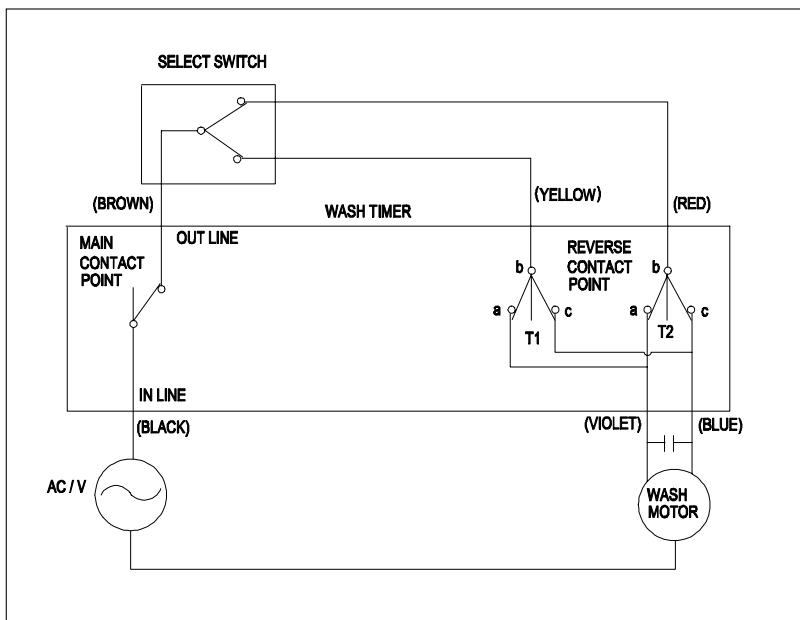
The main switch remains ON during the washing time set by turning the timer knob.

At the same time, the internal switch T1 and T2 which provide power to WASH MOTOR alternately at assigned Intervals. Select switch knob sets the wash type by means of controlling the interval of internal switch contact.

STRUCTURE AND PRINCIPLE OF ACTIVATION



CIRCUIT DIAGRAM

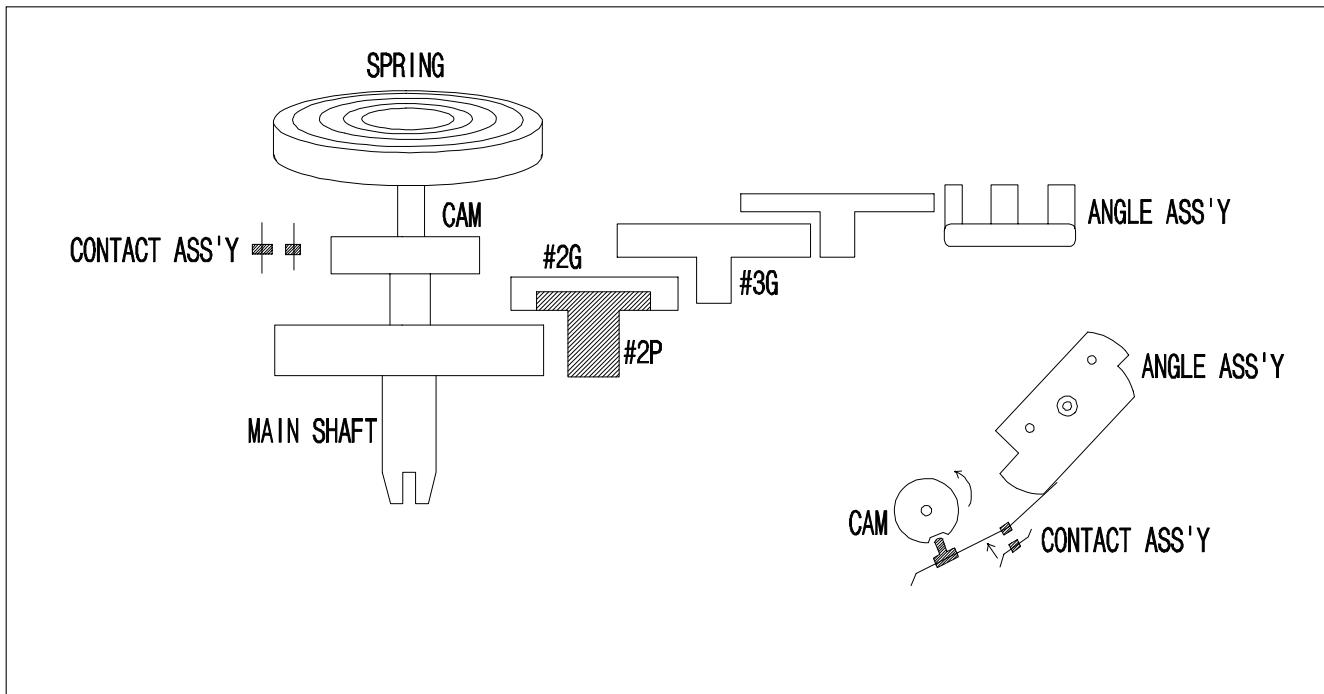


Spin Timer

FUNCTION

The spin timer is the switch providing power to the SPIN MOTOR(DRAIN PUMP MOTOR) during the set spin dry time, and is a spring-type time switch comes on turning and those contact points comes off after the set time.

STRUCTURE AND PRINCIPLE OF ACTIVATION



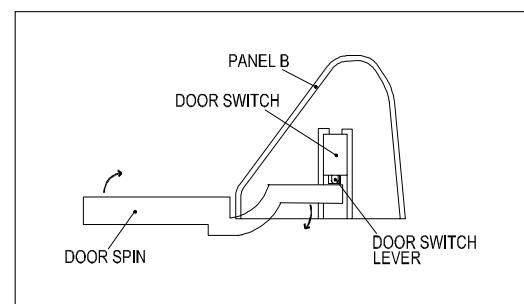
- 1) The main shaft turns due to the unwinding force when the spin timer is turned, the spring wound with that force being delivered through each gear and the spring slowly unwinding at a speed finally controlled by the angle assembly.
- 2) The contact point Turns ON and the assembly angle is set in motion which is in the CAM groove in the OFF state, comes off the groove when the main shaft is turned to wind the spring. The contact point turns OFF, return to CAM groove when the spring unwind completely.

SAFETY DEVICE FOR BASKET SPIN

The BASKET SPIN is an apparatus which eliminates the water from the laundry through centrifugal separation generated by rapid revolution(approximately 1,700rpm for 60Hz). Accordingly, there are a DOOR SWITCH to cut off the power going into the DOOR SPIN is opened and a brake system to stop the rotating BASKET SPIN.

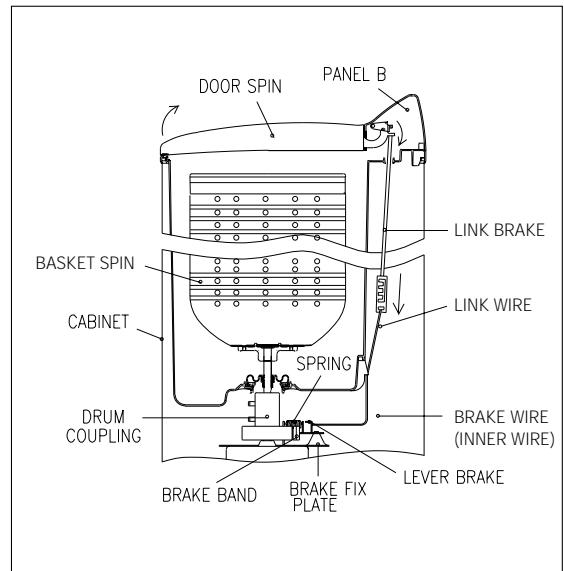
DOOR SWITCH

When the DOOR SPIN is opened during spinning, the DOOR SWITCH LEVER which sites atop the DOOR SPIN falls off the contact, and cuts off the power going into the SPIN MOTOR.



BRAKE SYSTEM

When the DOOR SPIN is opened, LINK BRAKE which connect to DOOR SPIN loosens. And then the BRAKE BAND touches the DRUM COUPLING assembly and stops the BASKET SPIN as it is pulled by the SPRING in the BRAKE FIX PLATE assembly.

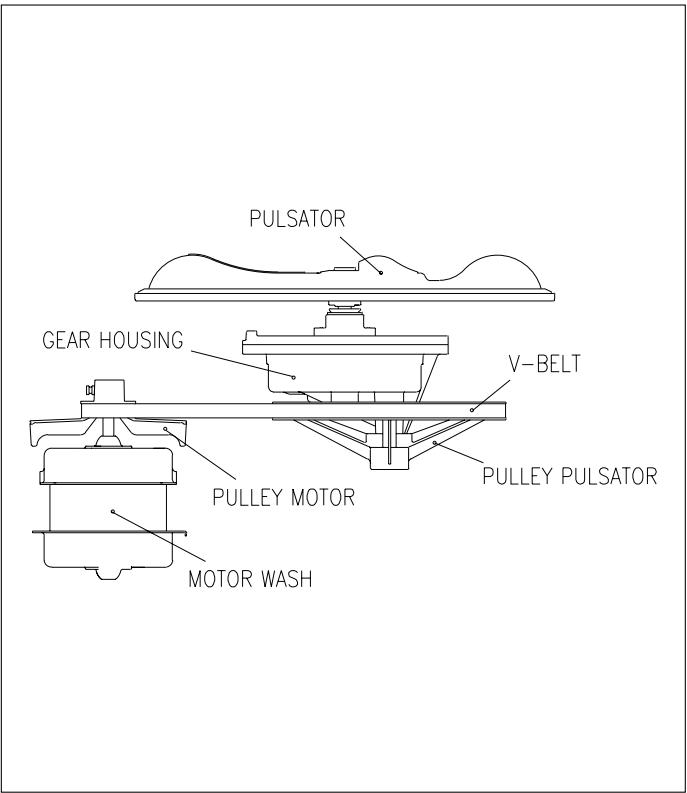
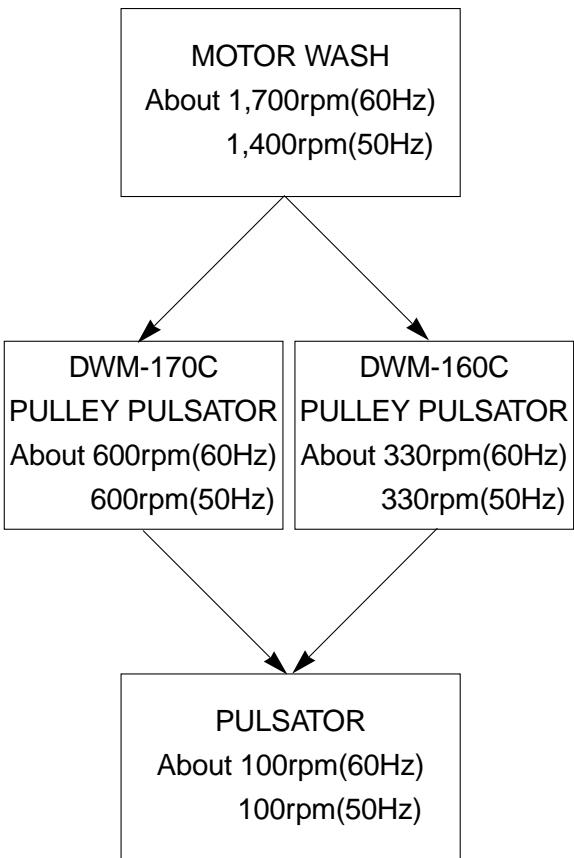


BRAKE BAND GAP CONTROL METHOD

The BAND BRAKE works best when the gap between it and the DRUM COUPLING is about 2mm when the DOOR SPIN is closed. The BASKET SPIN stops slowly if the gap between the two is too narrow, the BASKET SPIN revolution is affected and the PLATE CONTROL WIRE may be adjusted to maintain the BRAKE BAND gap adequately.

WASH DECELERATOR ASSEMBLY

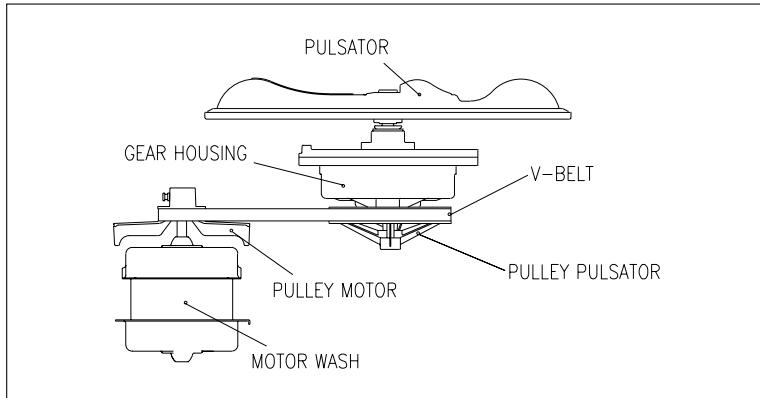
The initial deceleration following the activation of the WASH MOTOR takes place through the PULLEY MOTOR and PULLEY PULSATORT, and the secondary deceleration is done by the gear in the GEAR HOUSING which also increases their revolution strength. This revolution speed and strength is delivered to the PULSATORT, which is then able to cause water current that is strong yet soft so that wash loads are not damaged.



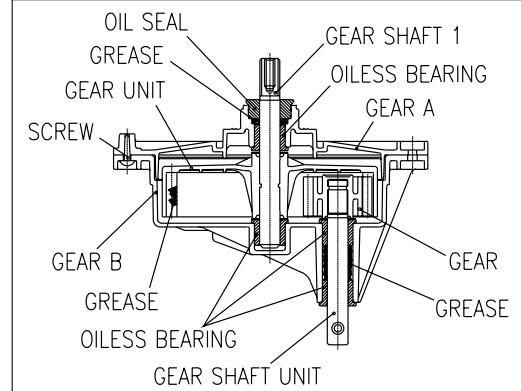
DWM-160C

GEAR HOUSING ASS'Y

The GRAR HOUSING ASSEMBLY is a transmission device which turns the PULSATATOR at 3.3:1 (DWM-160C) or 6:1 (DWM-170C) lowered speed through the gear unit assembly which receives power at the GEAR SHAFT UNIT.



STRUCTURE (DWM-160C)



DWM-170C

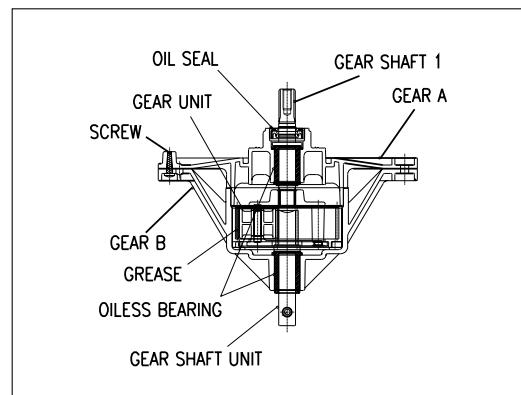
- 1) The two sides of the GEAR SHAFT UNIT are supported by the OILLESS BEARING in the GEAR HOUSING ASSEMBLY.
- 2) The GEAR UNIT ASSEMBLY is connected to the GEAR SHAFT 1 and GEAR SHAFT UNIT by the GEAR and GEAR UNIT respectively.
- 3) The two sides of GEAR SHAFT 1 are supported by the OIL SEAL and OILLESS BEARING in the GEAR HOUSING ASSEMBLY.

BELLOWS ASS'Y

The wrinkled rubber device on the bottom of the BASKET SPIN is called BELLOWS ASSEMBLY.

It has a waterseal and a oilless metal inside to prevent leakage and so that the BASKET SPIN may work smoothly.

STRUCTURE (DWM-170C)

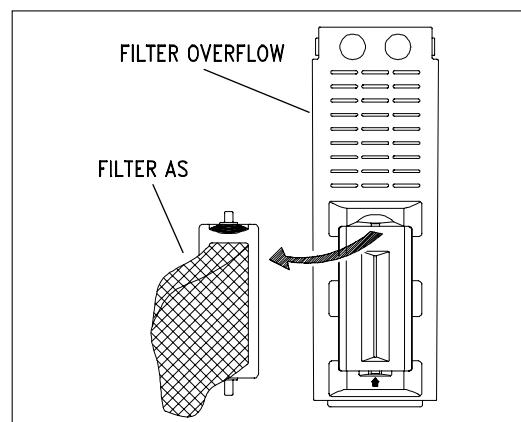


Fil ter

Much lint may be obtained depending upon the kind of clothes to be washed and some of the lint may also be suck to the clothes. To minimize this possibility, a lint filter is provide on the upper part of the FILTER OVERFLOW to filter the wash water. Use of the lint filter during every wash is recommend.

CLEANING THE LINT FILTER

- 1) Remove the FILTER AS from the FILTER OVERFLOW by pressing it downwards.
- 2) Turn the FILTER AS inside out, and wash the lint off with water.
- 3) Return the FILTER AS it was, and fix the FILTER AS to the FILTER OVERFLOW.



4. DIRECTION FOR DISASSEMBLY AND ASSEMBLY

Ass'y Panel Back

1. Remove 3 screws on the PANEL B.



2. Remove KNOB, wash timer and spin timer on the PANEL B.



3. Remove 3 screws and CONTROL LEVER

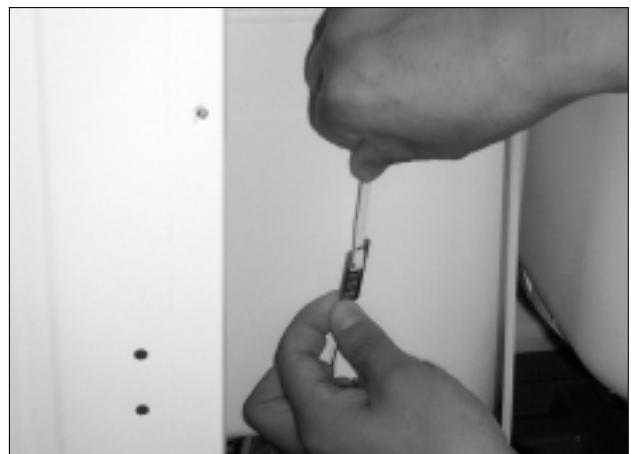


Basket Spin

4. Remove 4 screws on the COVER BACK.



5. Separate LINK BRAKE and ASSEMBLY BRAKE WIRE.



6. Remove 1 bolt and nut on the upper side of the DRUM COUPLING AS.



7. Remove the PLATE T on the TUB.



8. Lift up the BASKET SPIN.

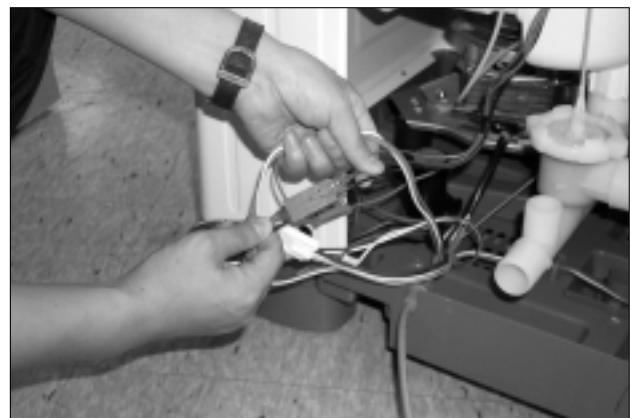


Ass'y Base Under

9. Remove 1 screw on the CABINET.



10. Separate HARNESS AS connectors.



11. Remove a V-BELT from PULLEY MOTOR.



12. Turn over the washing machine.



13. Remove 7 screws on the BASE UNDER ASSY.



14. Remove 3 screws on the BRACKET MOTOR, and remove the SPIN MOTOR.



15. Remove 3 bolts on the BASE UNDER, and remove the WASH MOTOR.



16. Remove 1 screw on the FIXTURE PUMP. (In case of pump model)



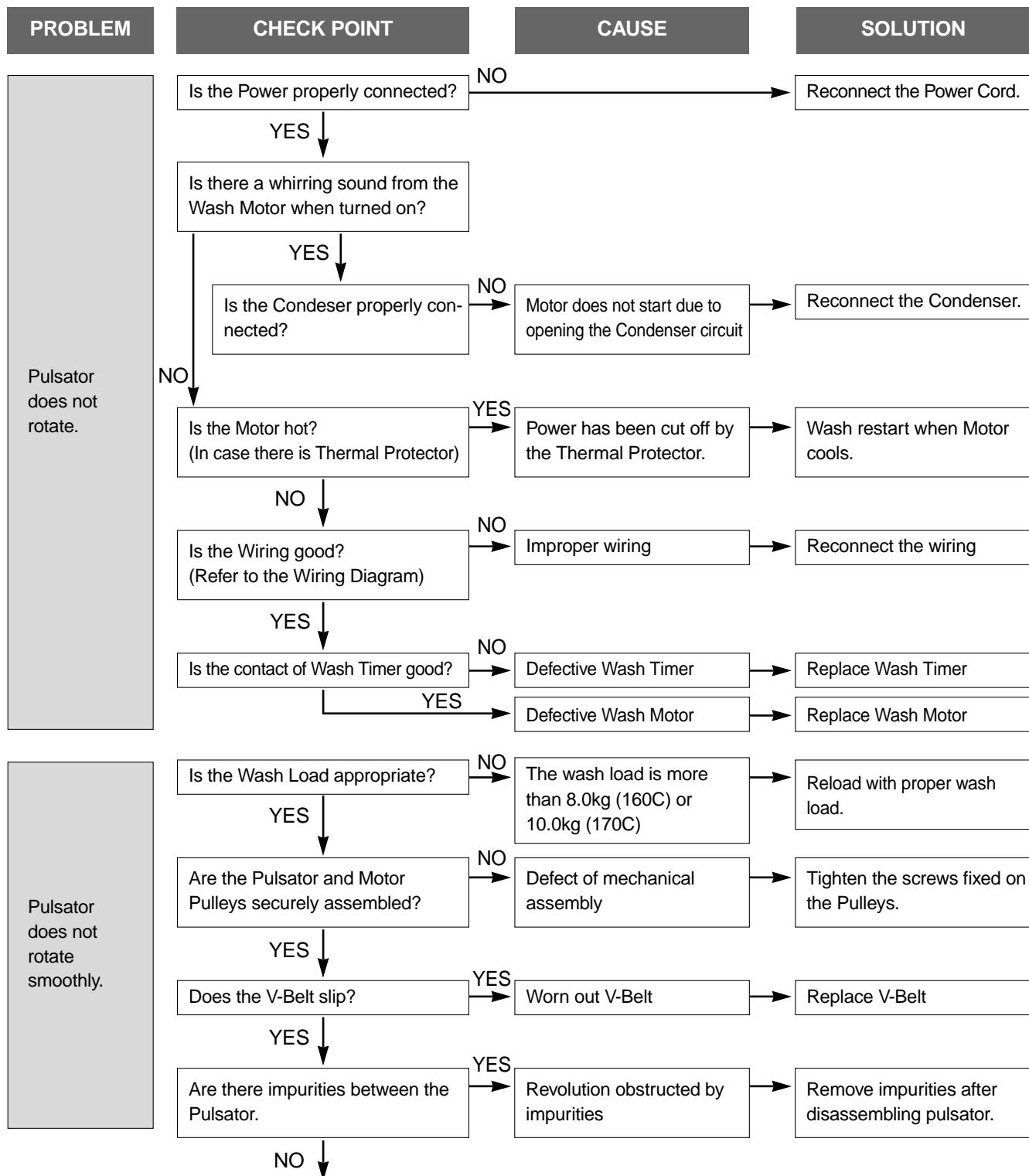
5. TROUBLESHOOTING GUIDE

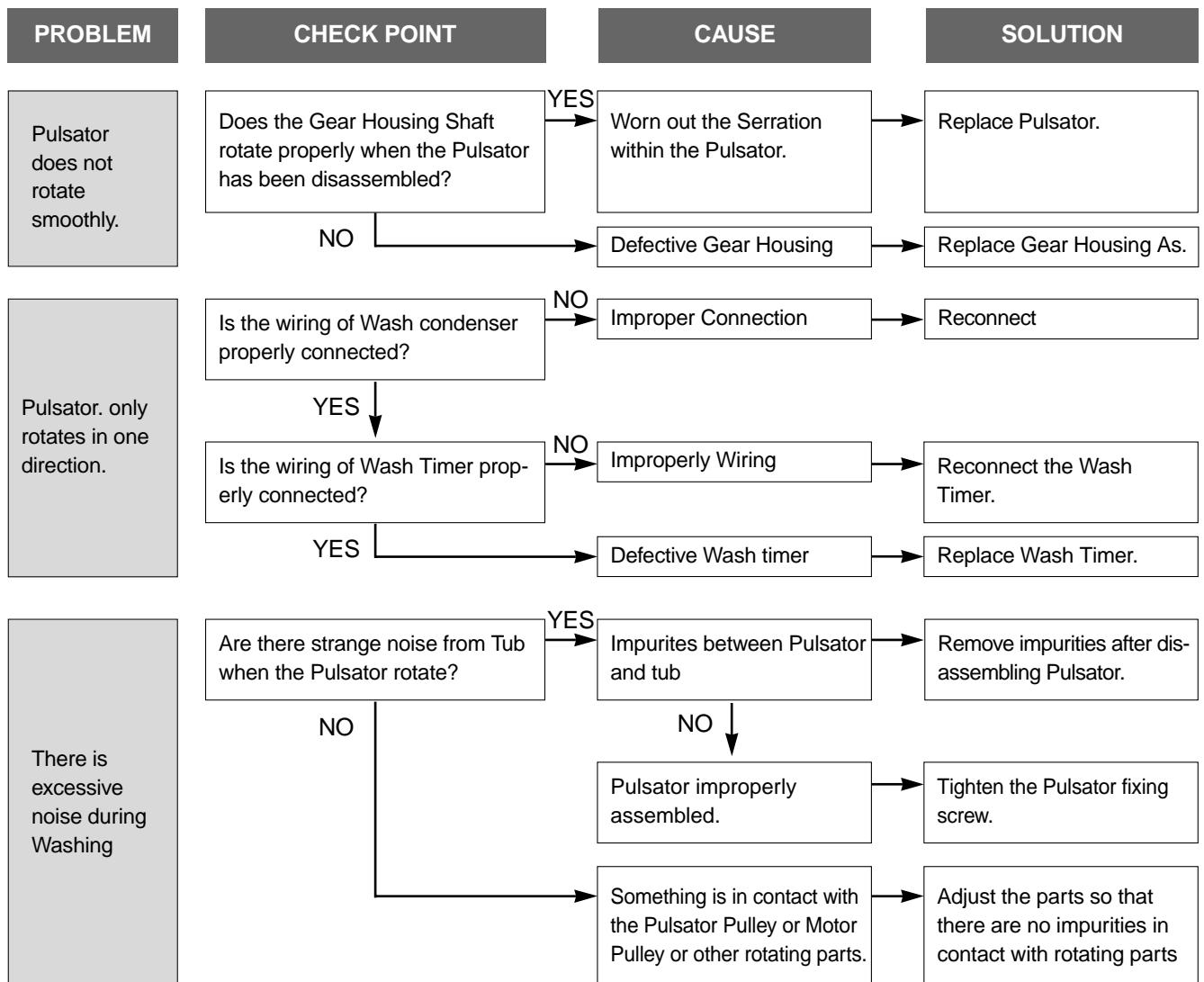


NOTES

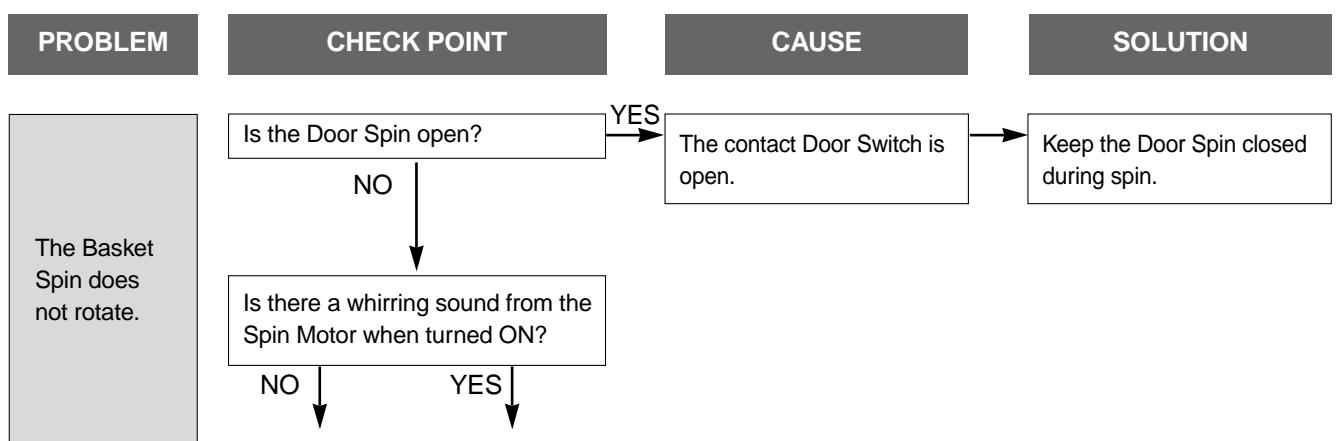
Pull out the power plug to repair and make sure that the Washing Machine has been properly grounded.

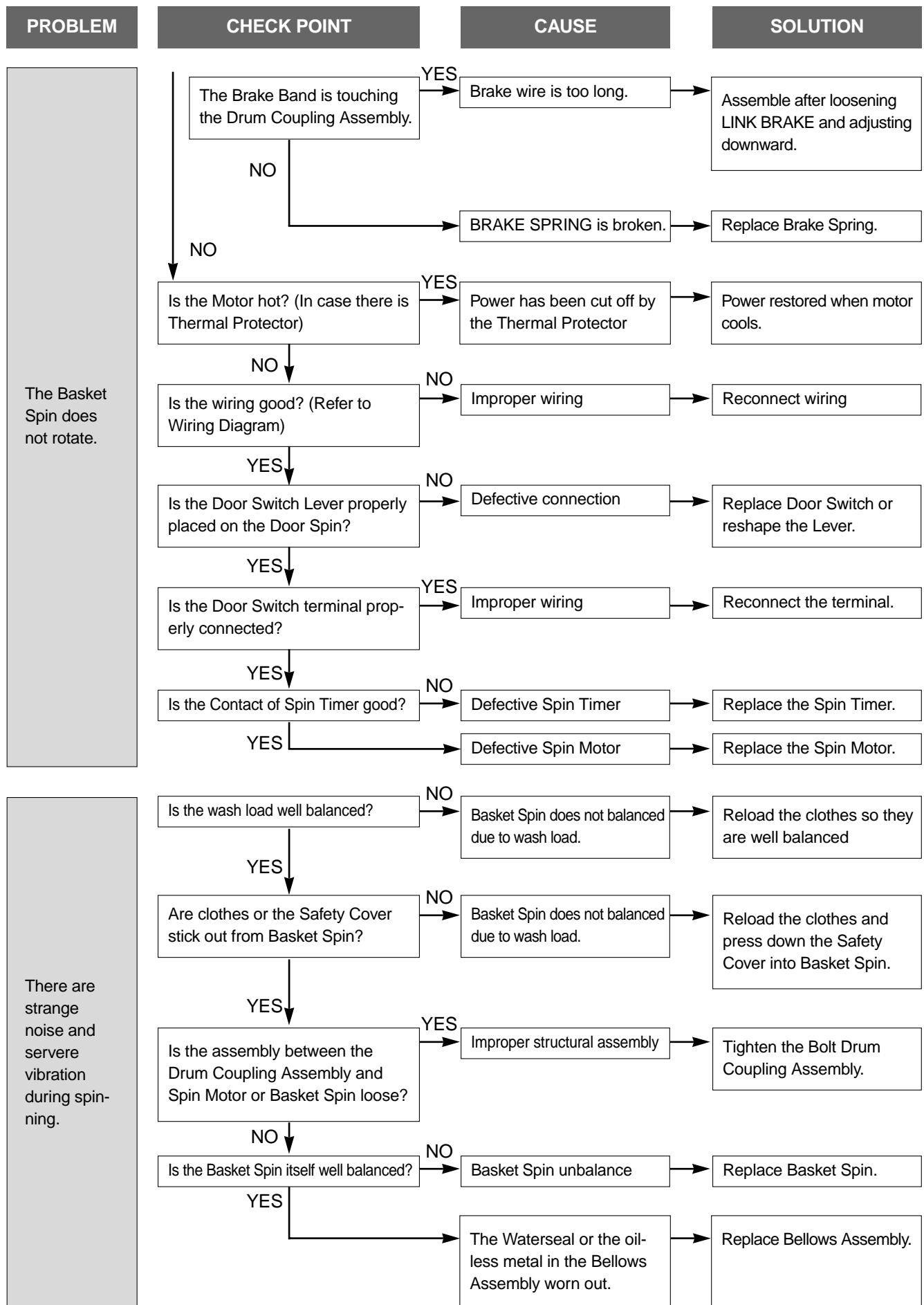
Concerning Wash

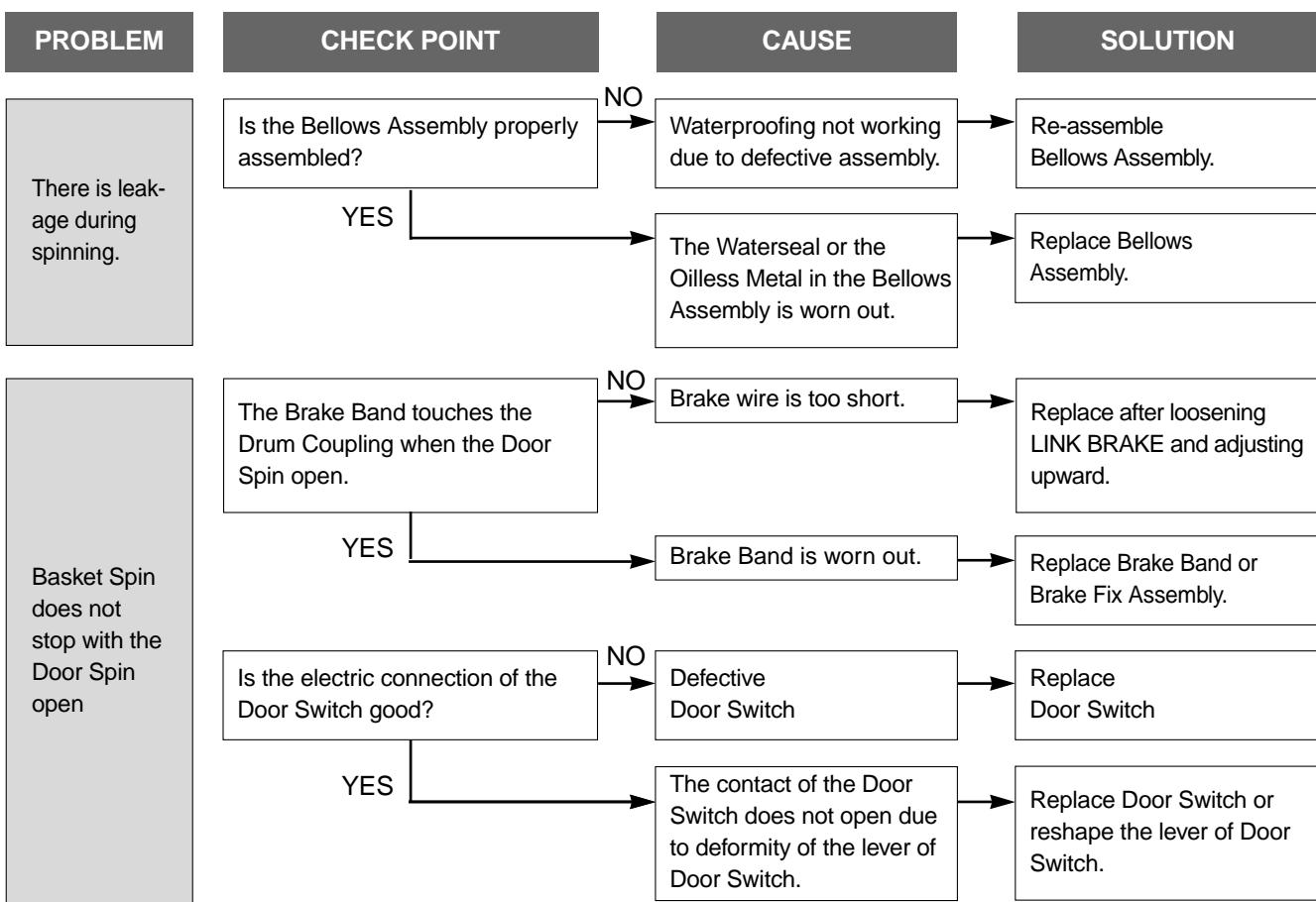




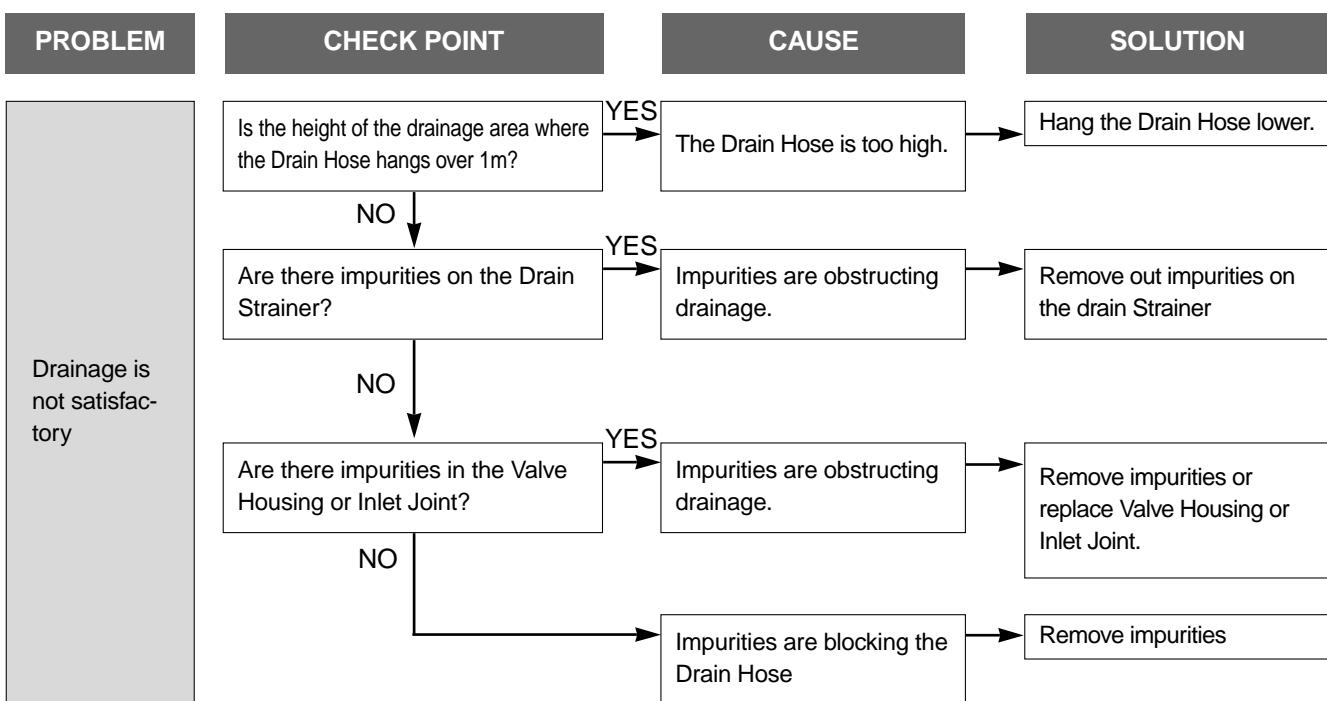
Concerning Spin

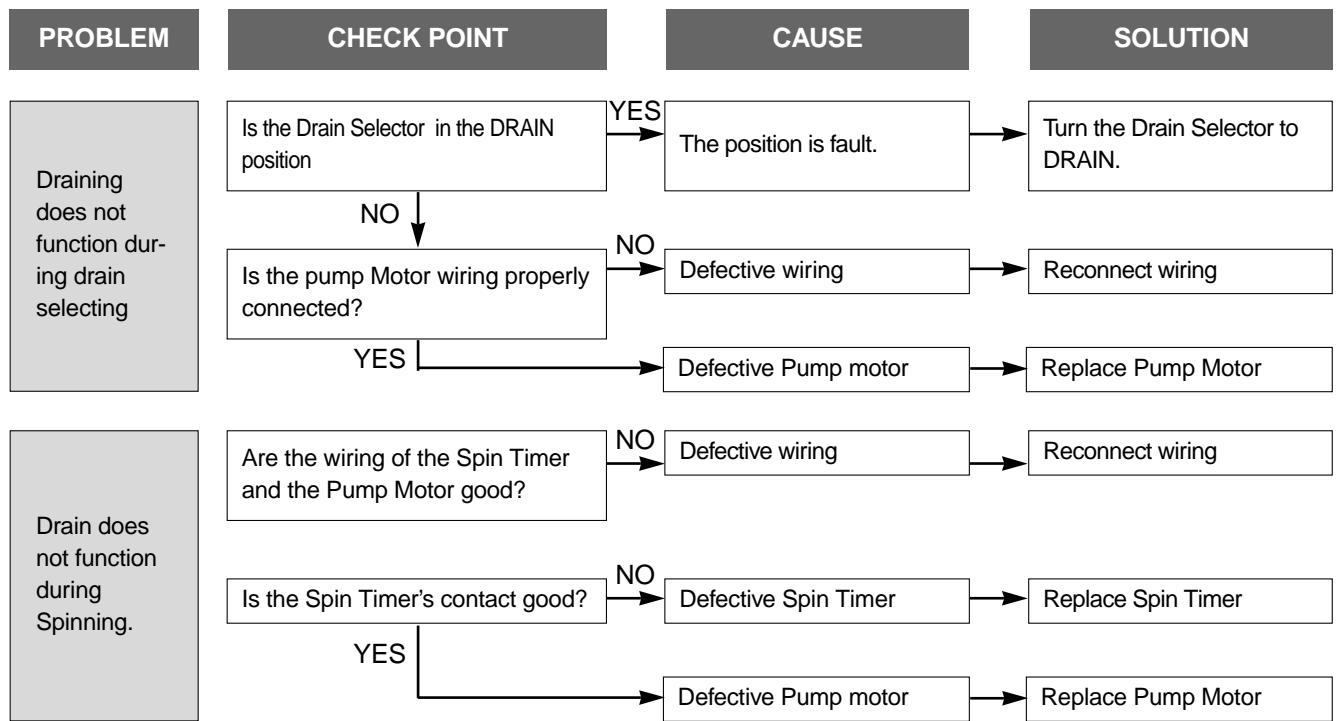




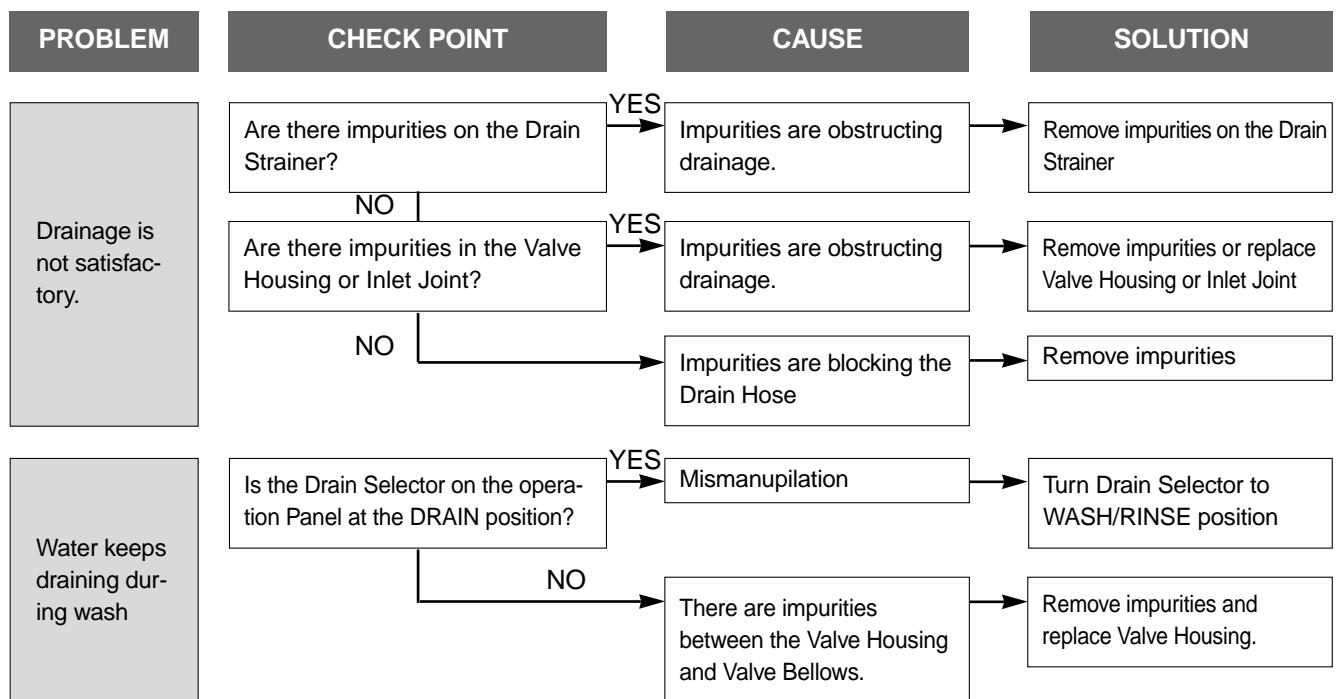


Concerning Drainage (Pump)



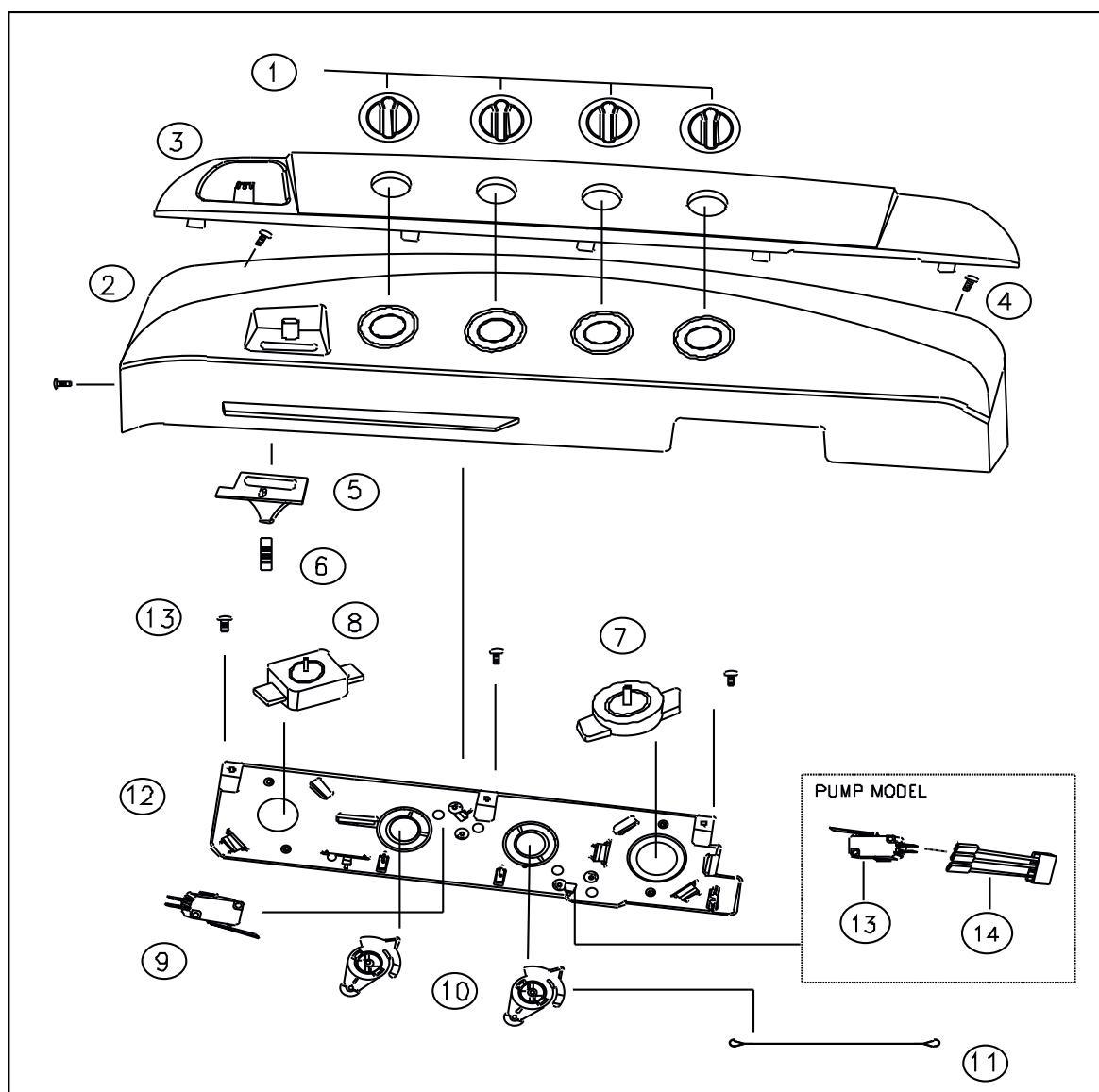


Concerning Drainage (Non Pump)

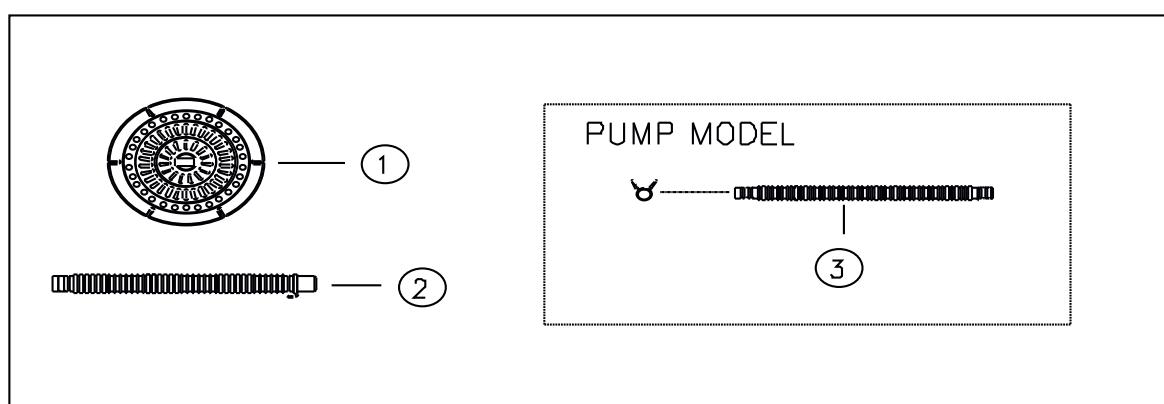


6. EXPLODE VIEW AND PARTS LIST

ASS'Y PANEL BACK



ACCESSORY ASS'Y



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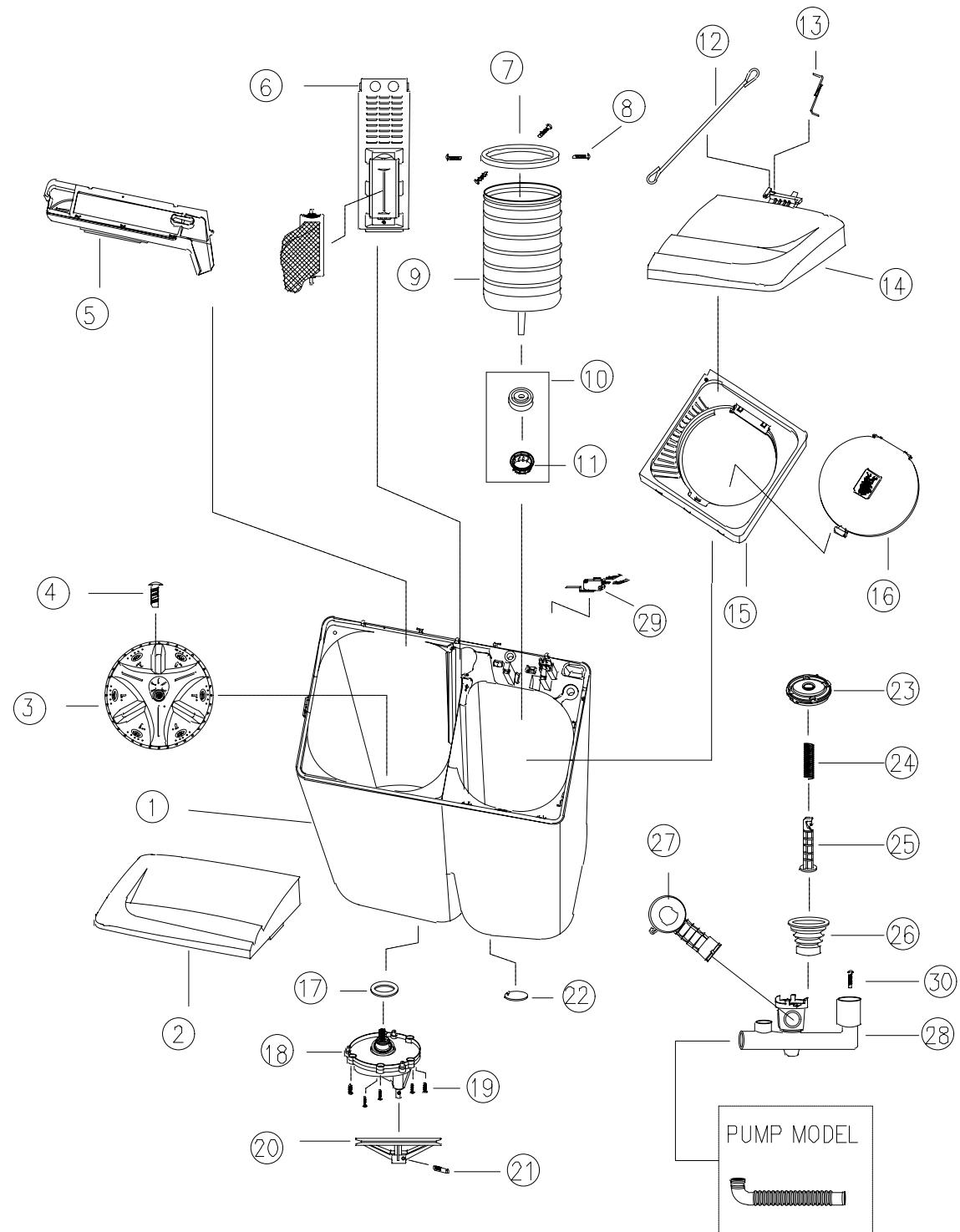
PANNEL ASS'Y

NO.	PART NAME	PART CODE	DESCRIPTION	QTT'Y	REMARKS
1	KNOB	3613403800	DWM-160C, ABS	4.0	
		3613404000	ABS	4.0	161C/162C/171C/172C
2	PANEL B	3614239000	HIPS	1.0	160C/170C
		3614274300	HIPS	1.0	161C/162C/171C/172C
3	DECORATOR PANEL	3611621800	ABS	1.0	161C/171C
		3611621810	ABS	1.0	162C/172C
4	SCREW TAPPING	7122401411	T2S TRS 4X14 MFZN	3.0	
5	LEVER W.S SELECT	3613702300	PP	1.0	
6	HOSE SPRAY	3613201201	PE-LD	1.0	
7	TIMER SPIN	3619911200	S-160CA	1.0	
8	TIMER WASH	3619911100	S-DT15NT	1.0	OPTION
		3619911300	S-K16NT	1.0	OPTION
9	SWITCH DRAIN	3619043700	VP531A-2H,250VAC/15A	1.0	
10	LEVER CONTROL	3613701400	POM	2.0	
11	LINK VALVE	3617804200	PP BAND W6 L=784	1.0	
12	BRACKET PANEL	3610606200	PP	1.0	
13	SCREW TAPPING	7122401411	T2S TRS 4X14 MFZN	3.0	
14	SWITCH DRAIN	3619045300	VO, SZM-V15-18FA-91	1.0	PUMP MODEL
15	HARNESS DRAIN	3612790600	160CP SW DRAIN L=1100	1.0	PUMP MODEL

ACCESSORY ASS'Y

NO.	PART NAME	PART CODE	DESCRIPTION	QTT'Y	REMARKS
1	COVER SAFETY	3611419900	LDPE(DIA:286)	1.0	
2	HOSE DRAIN O AS	3613224310	820MM, HANGER, NON CLAMP	1.0	NON PUMP
3	HOSE DRAIN O AS	3613218800	LD-PE/EVA L=1600 PUMP	1.0	PUMP MODEL

Ass'y Tub

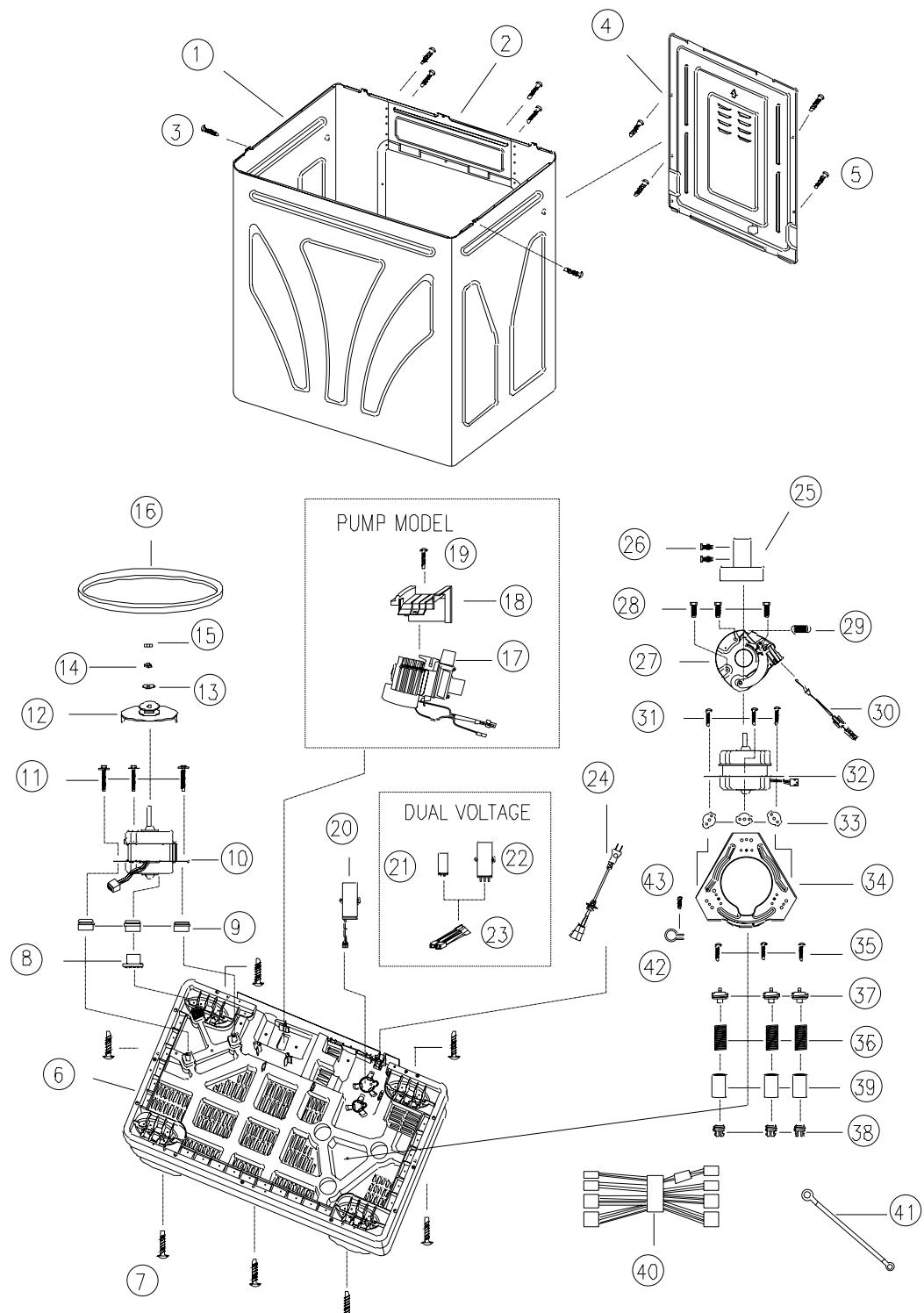


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ass'y tub

NO.	PART NAME	PART CORD	SPECIFICATION	Q'TY	REMARKS
1	TUB	3618819000	PP	1.0	
2	DOOR WASH	3611799600	HIPS	1.0	
3	PULSATOT AS	3619706800	DWM-160C	1.0	
4	SPECIAL SCREW	3616002901	SUS 304(NON SLOCK)	1.0	
5	BASE WATER SUPPLY	3610390900	PP	1.0	
6	FILTER OVERFLOW AS	3611903800	WITH FILTER AS	2.0	
7	BALANCER AS	3616105800	DWM-160C	1.0	
8	SCREW TAPPING	7122401211	T2S TRS 4*12 MFZN	4.0	
9	BASKET SPIN	3619103600	PP(J-360A)	1.0	
10	BELLOWS	3616402000	NBR	1.0	
11	FIXTURE BELLOWS	3612005800	PP	1.0	
12	LINK BRAKE	3617804300	PP BAND W6 L=564	1.0	
13	SPRING COVER	3615108810	HSW3	1.0	
14	DOOR SPIN	3611799500	HIPS	1.0	
15	PLATE T	3614525200	PP	1.0	
16	COVER INNER	3611419700	PP	1.0	
17	RING O	4506H05050	CR	1.0	
18	GEAR HOUSING ASS'Y	3617306201	3.3:1	1.0	DWM-160C
		3617309100	6:1	1.0	DWM-170C
19	SCREW TAPPING	7122502011	T2S TRS 5X20 MFZN	5.0	
20	PULLEY PULSATOT	3618432500	FRPP	1.0	DWM-160C
		3618432600	FRPP	1.0	DWM-170C
21	SPECIAL BOLT	3616008400	M6 SIDE-FIXING	1.0	
22	PROTECTOR F.B	3618303500	NBR	1.0	
23	VALVE CAP	4505F06013	PE-HD	1.0	
24	SPRING VALVE	4505C06022	SWC WR 1.0D	1.0	
25	ROD VALVE	3618504000	PP	1.0	
26	BELLOWS VALVE	4505C06041	NBR	1.0	
27	INLET JOINT	3617504100	PP	1.0	
28	CASE VALVE	3611131600	PP	1.0	
29	COVER S/W AS	4507K44031	15A 220VAC 1006FD	1.0	
30	SCREW TAPPING	7122502011	T2S TRS 4X14 MFZN	1.0	

Ass'y Main



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ass'y main

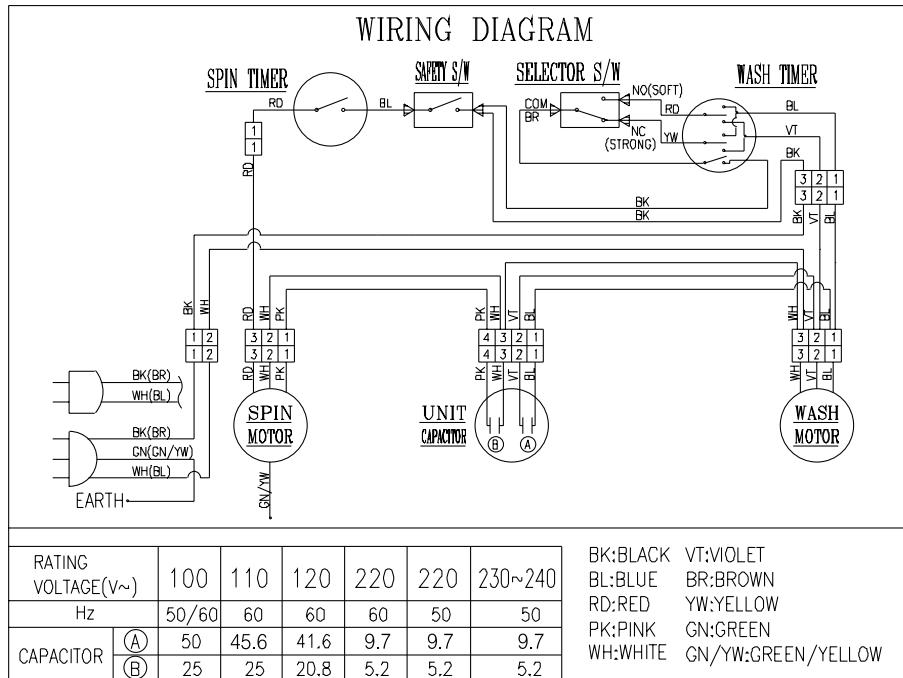
NO.	PART NAME	PART CORD	SPECIFICATION	Q'TY	REMARKS
1	ASSY CABINET	PRCACAC6200	DWM-160C 0.6T	1.0	
2	PLATE UPPER	3614525100	SGCC 0.6T	1.0	
3	SCREW TAPPING	7122401011	T2S TRS 4*10 MFZN	4.0	
4	COVER BACK	3611419800	SECC 0.4T	1.0	
5	SCREW TAPPING	7112400811	T1 TRS 4*8 MFZN	4.0	
6	BASE UNDER	3610390800	PP	1.0	
7	SCREW TAPPING	7122401011	T2S TRS 4*10 MFZN	7.0	
8	CUSHION SPOT	450M712010	PP	1.0	
9	CUSHION MOTOR	450M712020	NR	3.0	
10	MOTOR WASH	3618961900	220~240V/50HZ,W1S35VD060	1.0	N(P), M(P)
		3618961600	110V/60HZ,W1S35ED060	1.0	T(P)
		3618961800	220V/60HZ,W1S35UD060	1.0	L
		3618962000	W1S35GD060	1.0	D,S
11	SPECIAL SCREW	3616003100	M5X35 WASHER	3.0	
12	PULLEY MOTOR AS	3618431700	PRESS(SGCC1.2T,D31),2.1MM	1.0	50HZ
	PULLEY MOTOR AS	3618431600	PRESS(SGCC1.2T,D24),4.3MM	1.0	60HZ
13	WASHER PLAIN	7400108411	PW-1-8.4 MFZN	1.0	
14	WASHER SPRING	7401008011	SW-8 MFZN	1.0	
15	NUT HEX	7392800011	M8*P1.25 MFZN	1.0	
16	BELT V	450M700020	M-32	1.0	DWM-160C
		3616590700	M-24	1.0	DWM-170C
17	UNIT DRAIN PUMP AS	3618964800	AC 220~240V, 50HZ,PLASET	1.0	NP, MP
		3618964900	AC 110V, 60HZ,PLASET	1.0	TP
18	FIXTURE PUMP	3612005700	PP	1.0	
19	SCREW TAPPING	7112402011	T1 TRS 4X20 MFZN	1.0	
20	UNIT CAPACITOR	3618948200	9.7/5.2 400/440 CON-4P	1.0	L,N(P),M(P)
		3618948600	45.6/25 200/200 CON-4P	1.0	T(P)
21	CAPACITOR WASH	4505E11000	25+25UF	1.0	D, DUAL
		4509C11020	200V 20.8UF*2	1.0	S, DUAL
22	CAPACITOR SPIN	4509C11010	MF CAPACITOR 200V 20.8MF	1.0	D,S,DUAL
23	HARNESS CONDENSER	3612706710	CONN A,B	1.0	DUAL
24	CORD POWER AS	3611332100	T VACTFK 2*0.75 2.3M GY	1.0	
		3611331700	A VACTFK 2*0.75 2.3M GY	1.0	
		3611331310	VCTF 3*0.75 2.3M GY	1.0	
		3611331630	H05VV-F 3*0.75 WH	1.0	
		3611331650	H05VV-F 3*0.75 BK	1.0	
		3611331110	VCTF 3*0.75 2.3M GY	1.0	
		3611331810	H05VV-F 3*0.75 2.3M BK	1.0	
		3611332100	VCTFK 2*0.75 2.3M GY	1.0	
		3611331930	C SJT 3*18AWG 2.3M GY	1.0	
		3611331700	A VCTFK 2*0.75 2.3M GY	1.0	
		3611331700	FH05VV 3*0.75 2.3M BK	1.0	
25	COUPLING DRUM AS	3617002100	DWM-160C	1.0	
26	SPECIAL BOLT AS	3616008000	6B-1-M8X12	2.0	

✓ **Caution:** In this Service Manual, some parts can be changed for improving, their performance without notice in the parts list. So, if you need the latest parts information, please refer to PPL(Parts Price List) in Service information Center(<http://svc.dwe.co.kr>)

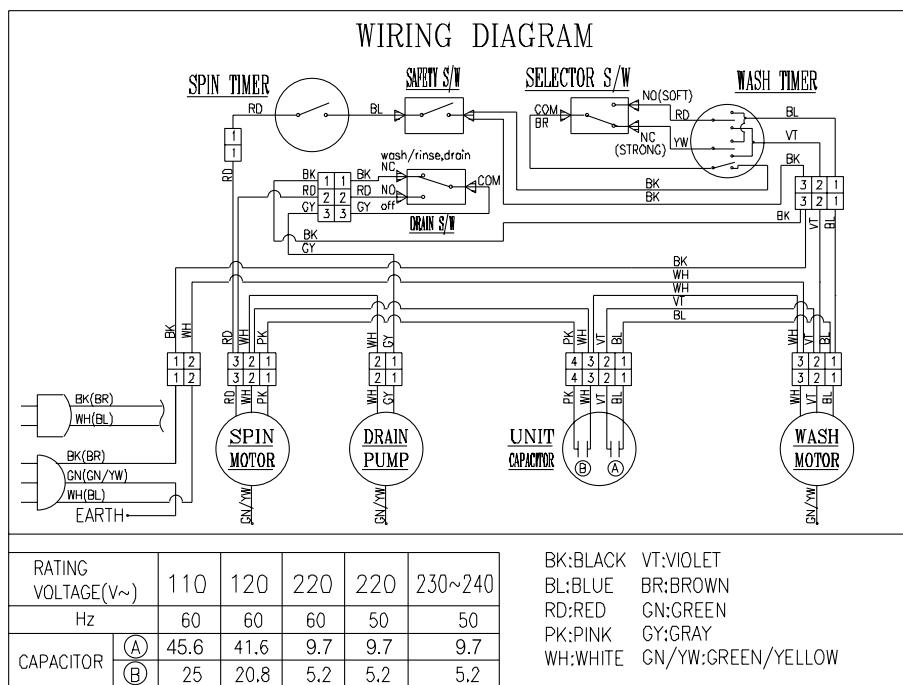
NO.	PART NAME	PART CORD	SPECIFICATION	Q'TY	REMARKS
27	BRAKE FIX PLT AS	4505C54000	2-WAY	1.0	
28	BOLT HEX	7341500811	6B-1-5X8 MFZN	3.0	
29	SPRING BRAKE	4507K53010	SWC D1.0 ZN8-C	1.0	
30	ASS'Y BRAKE WIRE	3619201702	SUS WIRE+PE L260	1.0	
31	BOLT HEX	7341501611	6B-1-5X16 HS MFZN	3.0	
32	UNIT SPIN MOTOR	3618949601	110V 60HZ W1D35EF001	1.0	T(P)
		3618949201	220V 60HZ W1D35UF001	1.0	L
		3618949401	220-240V 50HZ W1D35VF001	1.0	N(P), M(P)
		3618950101	W1D35FF002 110/220V 50HZ	1.0	D, DUAL
		3618950001	W1D35LF002 120/240V 60HZ	1.0	S, DUAL
33	CUSHION MOTOR SPIN	3611556300	PP	3.0	
34	BRACKET MOTOR SPIN	3610606100	SPG 1.6T	1.0	
35	SCREW TAPPING	7122502511	T2 TRS 5X25 MFZN	3.0	
36	SPRING CUSHION	3615112700	SWC D=3.2	1.0	
37	STOPPER	4506H14020	PE - HD	1.0	
38	STOPPER LOWER	3615200800	PP	1.0	
39	RUBBER DAMPING	4506H14030	NBR	1.0	
40	HARNESS ASS'Y	3612757300	7510	1.0	PUMP MODEL
		3612757220	800C	1.0	N,M,T,L
		3612756301	7510	1.0	D,S
41	HARNESS EARTH	3612757810	UL1015 AWG18 490	1.0	
42	CABLE CLAMP	3611202610	NYLON66 DA-5N	1.0	
43	TAPTITE SCREW	7272400811	TT3 TRS 4*8 MFZN	1.0	

7. WIRING DIAGRAM

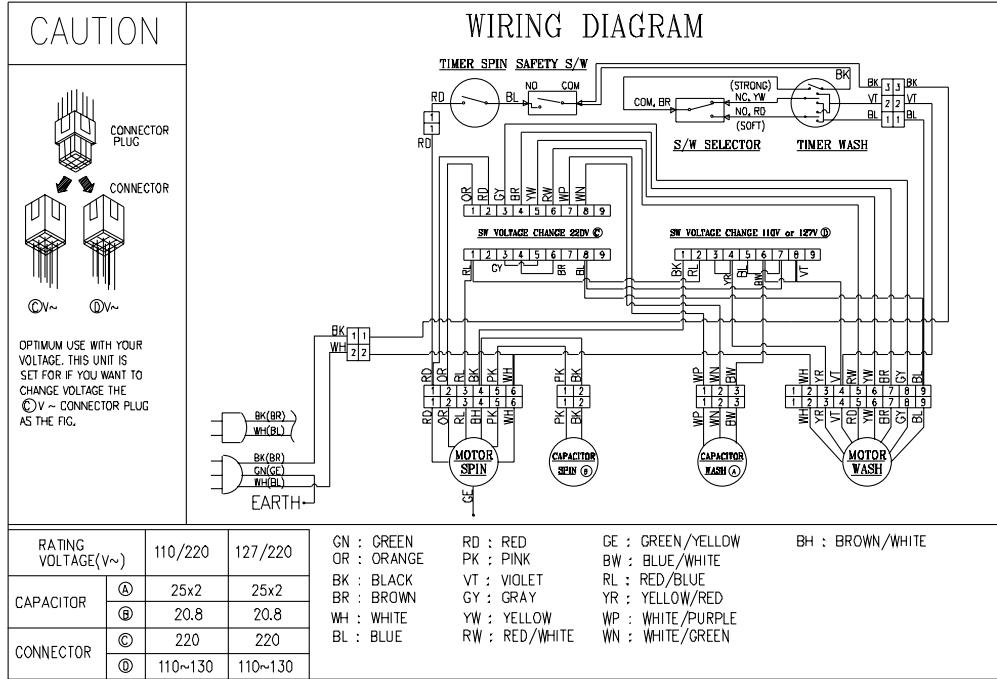
Single Voltage/Normal



Single Voltage/Pump



Dual Voltage/Normal



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PRINTED DATE: SEP.2001

S/M NO. : DWM161C011